

Comparisons of Job Characteristics

Focus Occupation: [Electricians \(47-2111\)](#)

Associated Occupation: [Electrical and Electronics Repairers, Commercial and Industrial Equipment \(49-2094\)](#)

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 77

Focus Occupation: Electricians (47-2111)

Associated Occupation: Electrical and Electronics Repairers, Commercial and Industrial Equipment (49-2094)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Computers and Electronics	8.4	17.5	10.1	<< Extensive education and/or training may be required
Mechanical	6.8	16.4	16.5	0 Current knowledge level may be sufficient
Engineering and Technology	5.7	11.7	11.8	0 Current knowledge level may be sufficient
Design	5.2	9.6	13.4	>> Current knowledge level is likely more than sufficient
Telecommunications	3.9	6.9	10.4	>> Current knowledge level is likely more than sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 80

Focus Occupation: Electricians (47-2111)

Associated Occupation: Electrical and Electronics Repairers, Commercial and Industrial Equipment (49-2094)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Quality Control Analysis	5.9	13.3	11.0	< A higher skill level may be required
Repairing	3.4	13.3	11.6	< A higher skill level may be required
Operation Monitoring	6.6	12.6	10.5	< A higher skill level may be required
Troubleshooting	4.5	12.0	12.3	0 Current skill level may be sufficient
Equipment Maintenance	3.5	11.1	10.3	0 Current skill level may be sufficient
Equipment Selection	3.3	10.5	8.4	< A higher skill level may be required
Installation	1.7	9.3	9.4	0 Current skill level may be sufficient

Technology Design	2.6	6.3	4.4	<<	Extensive development of skills in this area may be required
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The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities		Similarity of Focus Occupation to Associated Occupation: 90			
Focus Occupation: Electricians (47-2111)					
Associated Occupation: Electrical and Electronics Repairers, Commercial and Industrial Equipment (49-2094)					
Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Finger Dexterity	7.6	12.9	11.8	0	Current ability level may be sufficient
Category Flexibility	9.0	11.9	9.7	<	Some improvement in abilities may be required
Manual Dexterity	6.5	11.2	11.6	0	Current ability level may be sufficient
Flexibility of Closure	7.8	11.0	9.7	<	Some improvement in abilities may be required
Perceptual Speed	7.4	10.7	10.3	0	Current ability level may be sufficient
Visual Color Discrimination	6.4	10.6	12.8	>	Current ability level is likely sufficient
Hearing Sensitivity	5.6	9.3	7.9	<	Some improvement in abilities may be required
Speed of Closure	5.9	8.8	7.7	<	Some improvement in abilities may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common		Similarity of Focus Occupation to Associated Occupation: 90
Focus Occupation: Electricians (47-2111)		
Associated Occupation: Electrical and Electronics Repairers, Commercial and Industrial Equipment (49-2094)		
Work Activities	Exclusivity of Activity	
Analyze operation of malfunctioning electrical or electronic equipment	68	
Distinguish colors	44	
Fabricate, assemble, or disassemble manufactured products by hand	11	
Install electrical fixtures or components	71	
Install electronic power, communication, control, or security equipment or systems	76	
Install or replace meters, regulators, or related measuring or control devices	66	
Install/connect electrical equipment to power circuit	57	
Perform safety inspections in industrial, manufacturing or repair setting	32	
Plan layout of electrical/electronic equipment installation	89	
Plan or organize work	51	
Read blueprints	10	
Read technical drawings	7	

Repair electronic components, equipment, or systems	74
Repair or adjust measuring or control devices	71
Repair or replace electrical wiring, circuits, fixtures, or equipment	49
Replace electronic components	63
Solder electrical or electronic connections or components	55
Test electrical/electronic wiring, equipment, systems or fixtures	54
Test electronic or electrical circuit connections	66
Understand service or repair manuals	40
Use electrical or electronic test devices or equipment	40
Use hand or power tools	2
Use interpersonal communication techniques	10
Use oscilloscopes in electronics repair	77
Use soldering equipment	44
Use voltmeter, ammeter, or ohmmeter	52

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: 86

Focus Occupation: Electricians (47-2111)

Associated Occupation: Electrical and Electronics Repairers, Commercial and Industrial Equipment (49-2094)

Tools and Technologies	Exclusivity
Aerial lifts	13
Business function specific software	1
Compressors	9
Computer printers	2
Computers	1
Content authoring and editing software	1
Cutting and crimping and punching tools	3
Data management and query software	1
Electrical measuring and testing equipment	7
Finance accounting and enterprise resource planning ERP software	2
Forming tools	2
Holding and clamping tools	3
Indicating and recording instruments	2
Industry specific software	1
Ladders and scaffolding	6
Length and thickness and distance measuring instruments	2
Lifting equipment and accessories	3
Light and wave generating and measuring equipment	4
Machine tools	7
Measuring and layout tools	3
Personal communication devices	2
Power generators	16

Power tools	2
Prying and bending tools	10
Pulling tools	31
Safety apparel	4
Soldering and brazing and welding machinery and supplies	6
Temperature and heat measuring instruments	6
Tool attachments and accessories	12
Wrenches and drivers	2

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.